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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,799	10/31/2001	Rosa Maria Gomez	60011319-1	5959

7590

06/03/2004

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

TRAN, LY T

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Applicati n No.	Applicant(s)	
	09/998,799	GOMEZ ET AL.	
	Examiner	Art Unit	
	Ly T TRAN	2853	

-- Th MAILING DATE of this communication app ars on the cover sheet with th correspondenc address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-20, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seino et al (USPN 6,361,138) in view of Hanabusa et al. (USPN 5,459,496).

With respect to claims 1 and 10, Seino et al. discloses a method and an apparatus of determining service criteria for a print cartridge in a printer comprising:

- Receiving an indication that service is needed (Fig.6: element A, Column 3, line 66 to column 4, line 1)
- Determining a calculated age of the print cartridge (by reading the expiration date of the ink cartridge) (Fig.6: element C)
- Selecting a service procedure based on the determined calculated age (Fig.6: element F, Column 4, line 56 to column 5, line 27)

Although Seino teaches the determination of a calculated age of the ink cartridge instead of the print head as claimed, it is however known in the art the ink cartridge is an integral part of the print head as evidenced by Hanabusa (Column 1: line 30-31)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to calculate the age of the print head by calculating the age of the ink cartridge as taught by Seino, since it is well known in the art that the ink cartridge is an integral part of the print head as taught by Hanabusa.

With respect to claims 2 and 11, Seino et al. discloses selected service procedure has an impact on the long term life of the print cartridge that is proportional to the calculated age (Column 5: line 5-39).

With respect to claims 3 and 12, Seino et al. discloses classifying the calculated age as one of a plurality phase (Column 4: line 59-62).

With respect to claims 4 and 13, Seino et al. discloses plurality of phases include at least a beginning of life phase (Column 4: line 14-1) and a maturity phase (Column 5: line 10-14).

With respect to claims 5 and 14, Seino et al. discloses plurality phases include at least a beginning of life phase, a middle of life phase and a maturity phase (Column 6: line 8-26).

With respect to claims 6 and 15, Seino et al. discloses selected service procedure for beginning of life phase has a low impact on the long term life (Fig.7: element R)

With respect to claims 7 and 16, Seino et al discloses selected service procedure for middle life phase has a moderate impact on the long term life of the print cartridge(Fig.7: element Q)

With respect to claims 8 and 17, Seino et al. discloses selected service procedure for maturity phase has a severe impact on the long-term life of the print cartridge (Fig7: element S).

With respect to claims 9 and 18, Seino et al. discloses determining the calculated age comprises utilizing at least number of previous service procedure (Column 3: line 47-49, Column 4: line 45-52).

With respect to claim 19 and 20, Seino et al discloses service procedure for the ink cartridge, it's inherently has a prolonging impact on the useful life of the print cartridge because without cleaning service, the lifetime of the cartridge is shorter.

With respect to claims 22 and 23, Seimp et al discloses selecting from a plurality of service for curing a failure and service is selected from a plurality of service such as intensity and frequency of the service increase corresponding to the age (Fig.6: element G, I, J).

2. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seino et al (USPN 6,361,138) in view of Hanabusa et al. (USPN 5,459,496) as applied to claim 1 above, further in view of Brunch et al (EP 034935).

The combination of Seino and Hanabusa fails to teach selecting procedure service based on failed health, check the health of nozzle, repeating selected service if print head is determined to be operating inadequately,

Bunch teaches selecting procedure service based on failed health, check the health of nozzle, repeating selected service if print head is determined to be operating inadequately (Abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made as modify to select procedure service based on failed health, check the health of nozzle, repeating selected service if print head is determined to be operating inadequately as taught by Brunch et al. The motivation of doing so is to improve printing quality and the functional lifetime of the nozzles.

Response to Arguments

3. Applicant's arguments filed 4/16/04 have been fully considered but they are not persuasive.

Applicant's argument that Seino's invention does not disclose selecting a service procedure based on calculated age of the print head is not persuasive. Applicant's own disclosure and dependent claims 9 and 18 show that the age of the head is actually calculated by the volume of ink expelled or number of precious service procedure. Therefore age is equivalent to use. Refer to column 3; line 47-49, Seino discloses that the ink capacity and number of times maintenance and the degree of each maintenance have been storage in the storage, and based on these information in the storage, the suction is execute. Furthermore, Hanabusa et al teaches an integral head, so if a cartridge and the head are an integral part, then the age of the cartridge is also an age of the print head because they are in one unit. Therefore, Seino still meets the limitation of the claim.

Arguments of the references independently are not persuasive because the rejection is a combination of Seino with Hanabusa et al.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly T TRAN whose telephone number is 571-272-2155. The examiner can normally be reached on M-F (7:30am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2853

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LT
May 27, 2004



Stephen D. Meier
Primary Examiner